

ABSTRACT OF THE DISCLOSURE

A system in an asynchronous mobile communications system and located in a mobile station for determining use of space-time block-coding-based transmit diversity encoding in a base station including transmission antennas, comprises: a cell search unit for detecting frame timing information and scrambling codes of the base station from signals output from the base station; a descrambling unit for descrambling the signals output from the base station using the frame timing information and the scrambling codes; an accumulation processor for despread the descrambled signals; a depatternization unit for depatternizing the despread signals using pilot symbol patterns corresponding to the two transmission antennas; and an accumulator bank unit for performing accumulation and addition processes of the depatternized signals to output signals corresponding to the transmission antennas.